

Puzzles & Riddles

(also games and paradoxes)

Local Maxima

Davenport University

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May - June Scavenger Hunt Solution

How good is the song?

The text can be found within

When you know what's sought:

AV FF DG XX

You will need these links:

<https://youtu.be/CX11yw6YL1w?t=213>

<http://localmaxima.org/c32769969ef586f7e7c49b20bc5753fb.7z>

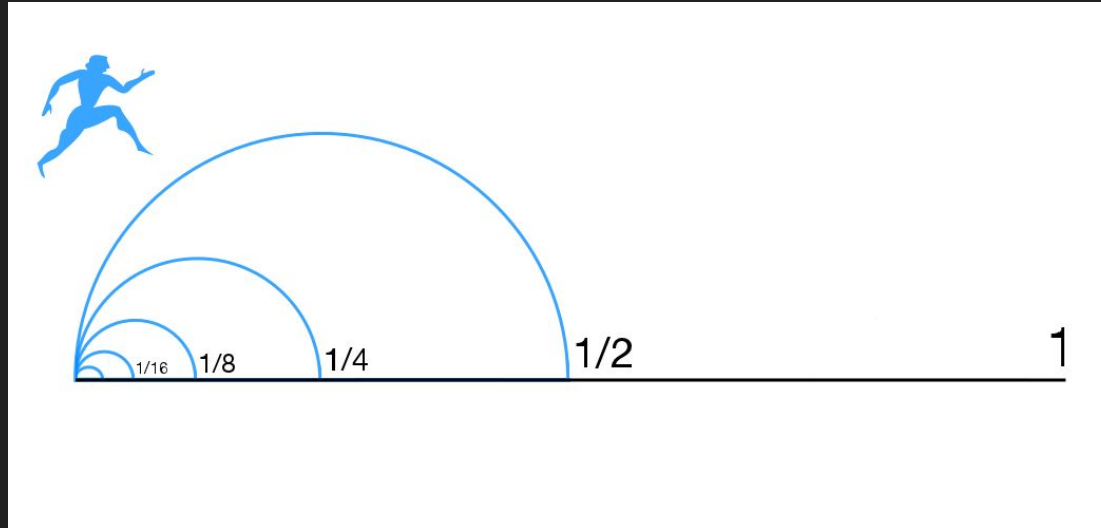
<https://www.britannica.com/topic/cipher>

Monty Hall Problem



https://en.m.wikipedia.org/wiki/Monty_Hall_problem

Zeno's Dichotomy Paradox



https://en.wikipedia.org/wiki/Zeno%27s_paradoxes

Fork in the Road

John and Bill are standing at a fork in the road. John is standing in front of the left road, and Bill is standing in front of the right road. One of them is a knight and the other a knave, but you don't know which. You also know that one road leads to Death, and the other leads to Freedom. By asking one yes–no question, can you determine the road to Freedom?

https://en.wikipedia.org/wiki/Knights_and_Knaves#Fork_in_the_road

Game: Count to 21 (Nim-like)

Add up to 2, instead of 3?

3 player?

n-player?

Riddles in the Dark



Gollum

What has roots as nobody sees,

Is taller than trees,

Up, up it goes,

And yet never grows?

Bilbo

Thirty white horses on a red hill,

First they champ,

Then they stamp,

Then they stand still.

Gollum

Voiceless it cries,

Wingless flutters,

Toothless bites,

Mouthless mutters.

Bilbo

An eye in a blue face

Saw an eye in a green face.

"That eye is like to this eye"

Said the first eye,

"But in low place,

Not in high place."

Gollum

It cannot be seen, cannot be felt,
Cannot be heard, cannot be smelt.

It lies behind stars and under hills,
And empty holes it fills.

It comes first and follows after,
Ends life, kills laughter.

Bilbo

A box without hinges, key or lid,
Yet golden treasure inside is hid.

Gollum

Alive without breath,

As cold as death;

Never thirsty, ever drinking,

All in mail never clinking.

Bilbo

No-legs lay on one-leg, two legs sat
near on three-legs, four-legs got
some.

Gollum

This thing all things devours:

Birds, beasts, trees, flowers;

Gnaws iron, bites steel;

Grinds hard stones to meal;

Slays king, ruins town,

And beats high mountain down.

Bilbo

What have I got in my pocket?

<http://www.ringgame.net/riddles.html>

Children's Ages

Two mathematicians meet after years of not being in touch with each other.

The first mathematician says to the second: "I remember that you have 3 kids, but I don't remember their ages."

The second mathematician says: "The product of my children's ages is 36 and the sum of their ages is the same as the number of windows in my house."

The first mathematician thinks for a bit and says: "I still don't know."

The second mathematician says: "I forgot to tell you that my oldest child has red hair."

The first mathematician says: "Now I know!"

1) What are the children's ages?

2) How many windows are in the house?

Map Coloring

Note: no two adjacent regions (sharing the same line or curve segment boundary, not just a corner) can have the same color

Draw a map requiring 1 color

Draw a map requiring 2 colors

Draw a map requiring 3 colors

Draw a map requiring 4 colors

Draw a map requiring 5 colors

https://en.wikipedia.org/wiki/Four_color_theorem



Any to Share?

Others to Explore

Tricky Riddles

<https://plentifun.com/tricky-riddles-for-adults>

Crime Mysteries

<https://brightside.me/wonder-quizzes/7-mystery-crime-riddles-only-a-true-detective-can-solve-374160/>

Paradoxes

<https://mathworld.wolfram.com/ZenosParadoxes.html>

<https://www.mentalfloss.com/article/59040/10-mind-boggling-paradoxes>

<https://plato.stanford.edu/entries/russell-paradox/>



Thanks for Attending!